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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,335	02/11/2005	Toshihiko Ohashi	MAT-8666US	6948

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RATNERPRESTIA  
P O BOX 980  
VALLEY FORGE, PA 19482-0980

EXAMINER
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KING, BRADLEY T

ART UNIT	PAPER NUMBER
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3683

MAIL DATE	DELIVERY MODE
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10/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/524,335

Applicant(s)

OHASHI ET AL.

Examiner

Bradley T. King

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2,4,7,9,11,13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4,7,9,11,13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

The finality of the previous office action has been withdrawn.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites "the internal capacitance value". There is insufficient antecedent basis for this limitation in the claims.

Claims 7 and 9 have a preamble inconsistent with that of parent claim 2.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 7, 11, 13, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al (US# 6356086).

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Cook et al discloses a power supply apparatus including; a capacitor unit 12, a microprocessor unit 16 for interrupting (stopping) charging or discharging of the capacitor unit; and a detection unit for measuring an internal resistance value of the capacitor unit based on; a current value in charging and a voltage increase  $V_{esr}$  when charging is restarted after the interruption by the microprocessor unit. See figure 2 and column 4. Note that the charging for the DC capacitance test is first stopped or interrupted, then the instantaneous voltage at the start (restart) of charging is used. Cook et al lack the explicit disclosure of the capacitor unit being formed of a plurality of capacitors. The examiner takes official notice that multiple the use of multiple capacitors is well known in the art to achieve the desired and/or provide a degree of redundancy to power systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the device of Cook et al with capacitor units having multiple capacitors, thereby ensuring proper operation in systems which provide a greater degree of capacity or redundancy.

Regarding claim 7, see the description of the second determination of ESR utilizing points  $x_1$  and  $x_2$  and the calculation of the slope.

Regarding claims 11-13, see column 4.

Regarding claim 15, the apparatus of Cook et al is capable of use with a vehicle power supply.

Claims 2, 7, 11, 13, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doljack (US# 7148697).

Doljack discloses a power supply apparatus including; a capacitor unit 32, a microprocessor unit 30 for interrupting charging or discharging of the capacitor unit; and a detection unit for measuring an internal resistance value of the capacitor unit based on; a current value in discharging and a voltage increase  $V_{esr}$  when interrupted by the microprocessor unit. See summary of the invention. Doljack lacks the explicit disclosure of the capacitor unit being formed of a plurality of capacitors. The examiner takes official notice that multiple the use of multiple capacitors is well known in the art to achieve the desired and/or provide a degree of redundancy to power systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the device of Doljack with capacitor units having multiple capacitors, thereby ensuring proper operation in systems which provide a greater degree of capacity or redundancy.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Regarding claim 15, the apparatus is capable of use with a vehicle power supply.

Claims 2, 7, 11-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al (US# 2004/0187674) in view of Cook et al (US# 6356086) of Doljack (US# 714897).

Bennett et al discloses a power supply apparatus which includes a capacitor unit 232. Bennett et al does not specifically state that the unit comprises a plurality of

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capacitors, but does further suggest a "complex capacitive circuit". [0030]. The examiner takes official notice that multiple the use of multiple capacitors is well known in the art to achieve the desired and/or provide a degree of redundancy to power systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the device of Bennett et al with capacitor units having multiple capacitors, thereby ensuring proper operation in systems which provide a greater degree of capacity or redundancy. Bennett further lacks the recited detection unit. Cook et al and Doljack each teach a detection unit for determining the condition of capacitors. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the detection mechanisms taught by Cook et al or Doljack in the system of Bennett et al to ensure proper operation of the system of Bennett, thereby increasing the safety of the brake system.

Regarding claim 16, see [0040].

Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al (US# 6356086) as applied to claim 2 above, and further in view of Lew et al (US# 5627325).

Cook et al disclose all the limitations of the instant claims with exception to the disclosure of temperature compensation. It is well known in the art and further demonstrated by Lew et al to compensate for temperature when measuring resistance and capacitance. Note Column 11, lines 1-5 and column 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

compensate the resistance and capacitance measurements of Cook et al, as known in the art and further demonstrated by Lew et al to ensure accurate measurements and abnormality determination, thereby improving the safety of the system.

Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett et al (US# 2004/0187674) and Cook et al (US# 6356086) or Doljack (US# 7148697) as applied to claim 2 above, and further in view of Lew et al (US# 5627325).

Bennett et al and Cook et al or Doljack disclose all the limitations of the instant claims with exception to the disclosure of temperature compensation. It is well known in the art and further demonstrated by Lew et al to compensate for temperature when measuring resistance and capacitance. Note Column 11, lines 1-5 and column 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to compensate the resistance and capacitance measurements of Cook et al or Doljack, as known in the art and further demonstrated by Lew et al to ensure accurate measurements and abnormality determination, thereby improving the safety of the system.

### ***Response to Arguments***

Applicant's arguments filed 10/04/2007 have been fully considered but they are moot in view of the new grounds of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 10/19/07

Bradley T King  
Primary Examiner  
Art Unit 3683

BTK